The American Planning Association provides leadership in the development of vital communities by advocating excellence in planning, promoting education and citizen empowerment, and providing the tools and support necessary to meet the challenges of growth and change.

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APA Community Assistance Program  
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www.planning.org/communityassistance/

Lyons CPAT Project Webpage  
Please visit:  
www.planning.org/communityassistance/teams/lyons

Cover Photo: A design rendering completed by the CPAT during their May 2014 visit to Lyons, Colorado.  
Image created by the Lyons CPAT
## CONTENTS

**INTRODUCTION** ................................................................. 3  
- The Purpose of the CPAT Initiative  
- Guiding Values  
- Program Background

**EXECUTIVE SUMMARY** ......................................................... 5

**PROJECT OVERVIEW** ........................................................... 6  
- Brief History

- Impact on Housing  
- Lack of Developable Land  
- Disaster Risk Reduction in the Confluence: Operationalizing Resilience in the Town of Lyons, Colorado  
- How Did We Arrive at Our Recommendations?

**II. LOCAL PLAN & POLICY REVIEW** ................................. 17  
- Plans & Policies Reviewed  
- Methods  
- Findings & Implications

**III. DESIGN-RELATED OBSERVATIONS & OPTIONS** .......... 21  
- Living with the River, Including its Assets and Risks  
- Living Within and Adjacent to the Floodplain  
- Enhancing the River Landscape and Trail System: Riparian Buffers and Public Access  
- Expanding Lyon’s Legacy of Parks and Open Space: Redefining the Park System  
- Connecting Parks and Downtown Lyons  
- Use of Vacant Lots in the Floodplain  
- Resilient Housing Design in the Floodplain  
- Replacing Lost Housing: Goals and Potential Sites

**IV. POLICY RECOMMENDATIONS** ........................................ 30  
- Improve the Mapping of Flood Hazard Areas  
- Adopt Post-Disaster Building Moratorium  
- Provide Disaster Reconstruction Guidance  
- Prepare a Post-Disaster Redevelopment Plan and Recovery Ordinance  
- Adopt Higher Floodplain Management Standards: Strategic Disinvestments in the Floodplain  
- Consider Joining the Community Rating System and No Adverse Impact Programs  
- Improve Flood Risk Communication and the Ability to Describe the Implications of Development Choices  
- Apply Mediation and other Dispute Resolution Techniques to Resolve Recovery Policy Issues  
- Enhance Existing Plans to Improve Resilience

**MEET THE TEAM** ................................................................. 38

**PICTURE GALLERY** ............................................................... 41
INTRODUCTION
In May 2014, the American Planning Association (APA), through its professional institute, the American Institute of Certified Planners (AICP), organized a Community Planning Assistance Team (CPAT) project in Lyons, Colorado. Lyons is the sixteenth community to participate in APA's Community Planning Assistance Teams program.

The project was selected from proposals submitted during CPAT's December 2013 community application review cycle. Anne Miller, AICP, Senior Planner for Colorado Department of Local Affairs, and Rosi Dennett, AICP, Lyons Housing Coordinator, served as APA's primary community liaisons throughout the effort. Victoria Simonsen, Lyons Town Administrator, and Michelle Allen of the Lyons Planning and Community Development Commission also served as important contacts and valuable resources for the team throughout the project.

This report presents the CPAT's findings, observations and recommendations for the residents and stakeholders of Lyons, Colorado.

THE PURPOSE OF THE CPAT INITIATIVE
The purpose of the Community Planning Assistance Team (CPAT) initiative is to serve communities with limited resources by helping them address planning issues such as social equity and affordability, economic development, sustainability, consensus building, and urban design, among others. By pairing expert urban planning professionals from around the country with residents and other stakeholders from local communities, the initiative seeks to foster education, engagement, and empowerment. As part of each team's goals, a community develops a vision that promotes a safe, ecologically sustainable, economically vibrant, and healthy environment.

APA staff works with the community, key stakeholders, and the host organization(s) to assemble a team of planners with the specific expertise needed for the project. The team meets on-site for three to five days, during which time a series of site visits, focused discussions, and analysis are performed. On the final day, the team reports their results back to the community. A more detailed report is issued to the community at a later date.

GUIDING VALUES
APA's professional institute, the American Institute of Certified Planners (AICP), is responsible for the CPAT initiative, which is a part of APA's broader Community Assistance Program. Addressing issues of social equity in planning and development is a priority of APA and AICP. The Community Assistance Program, including the CPAT initiative, was created to express this value through service to communities in need across the United States.

Community assistance is built into the professional role of a planner. One principle of the AICP Code of Ethics and Professional Conduct states that certified planners shall aspire to “seek social justice by working to expand choice and opportunity for all persons, recognizing a special responsibility to plan for the needs of the disadvantaged and to promote racial and economic integration.” Another principle is that certified planners should aspire to “contribute time and effort to groups lacking in adequate planning resources and to voluntary professional activities.”

PROGRAM BACKGROUND
In recognition of the key role urban and regional planners play in shaping vibrant, sustainable, and equitable communities, the APA Board of Directors established the “Community Planning Team” initiative in 1995. This initiative resulted in a pro bono effort to assist an economically struggling African American community in Greensboro, North Carolina. APA has continued to develop a pro bono planning program that provides as-
sistance to communities in need.

Another Community Assistance Program initiative is the Community Planning Workshop, which is held in the host city of APA’s National Planning Conference every year. The workshop is a one-day event that engages community leaders, citizens, and guest planners from around the country (and abroad) in discussing and proposing specific solutions to urban planning challenges. Workshops typically begin with an introduction of individuals involved and a tour of the community, neighborhood, or site. Participants form breakout groups that begin by discussing existing issues, then participants brainstorm new ideas based on community needs and sound planning techniques. Each breakout group “reports out” on its results to the entire group. Facilitators then lead a discussion to form consensus around future goals and ways to achieve these goals. Upon the conclusion of the workshop, the local community composes a final report that incorporates workshop results and specific actions that local officials could take to turn the project vision into reality.

In 2005, program efforts were increased after Hurricane Katrina in the Gulf Coast region to include a number of initiatives and projects in the affected cities of Henderson Point, Mississippi, and Mandeville, Slidell and New Orleans in Louisiana. Another Gulf Coast recovery project included the Dutch Dialogues, which brought American planners together with Dutch experts to transform the way that Louisiana relates to and manages its water resources.

AICP broadened the scope of the CPAT program with its 2009 project in Buzzard Point, a neighborhood in Southwest Washington, D.C. Over the course of the site visit, the team met with more than 40 neighborhood groups, government agencies, residents, and other stakeholders. The team advised community leaders on long-range strategies to strengthen existing and proposed transit links and increase accessibility, improve affordable housing developments, position the area as a major gateway to the city, and to deal with industrial areas within the neighborhood.

The last several years of completed projects in Matthews, North Carolina; Story County, Iowa; Maricopa, Arizona; Wakulla County, Florida; Dubuque County, Iowa; La Feria, Texas; Franklin, Tennessee; and Augusta, Georgia are important landmarks in the development of the CPAT program. They mark the inauguration of CPAT as an ongoing programmatic effort. The initiative will increase in scope and frequency in coming years, becoming an integrated part of APA’s service, outreach, and professional development activities.

More information about APA’s Community Assistance Program and the Community Planning Assistance Teams initiative, including full downloadable reports, is available at:

www.planning.org/communityassistance/teams
EXECUTIVE SUMMARY

This report represents a collaborative process involving the Town of Lyons, its elected officials, staff, and citizens; the State of Colorado; the CPAT; and the U.S. Federal Emergency Management Agency. The document is intended to provide the Town with design-based planning options, policy recommendations, and best practices to emulate as they continue to recover from the 2013 flood. The options and associated policy recommendations are derived from a series of stakeholder meetings held with Town officials, the State, and citizens, including those living in the hard-hit Confluence neighborhood. The recommendations also benefit from the insights of the CPAT and an assessment of existing planning tools and policies already in place in the Town of Lyons. Best practices, drawn from across the United States, are provided to help offer tangible examples of where similar actions have been initiated elsewhere.

Initially, the following design-related observations and options emerged:

1) Living with the river, including its assets and risks
2) Living within and adjacent to the floodplain
3) Enhancing the river landscape and trail system: riparian buffers and public access
4) Expanding Lyons’s legacy of parks and open space: redefining the park system
5) Connecting parks and Downtown Lyons
6) Use of vacant lots in the floodplain
7) Resilient housing design in the floodplain
8) Replacing lost housing: goals and potential sites

Observations and options helped to frame more specific policy recommendations:

1) Improve the mapping of flood hazard areas
2) Adopt a post-disaster building moratorium
3) Provide disaster reconstruction guidance
4) Prepare a post-disaster redevelopment plan and recovery ordinance
5) Adopt higher floodplain management standards: strategic disinvestments in the floodplain
   a. Restrict and remove development in the regulatory floodway
   b. Limit growth and remove development in the floodplain
   c. Adopt a cumulative substantial damage prevention ordinance
   d. Limit critical facilities in the floodplain
6) Join the Community Rating System and No Adverse Impact Program
7) Improve flood risk communication and the ability to describe the implications of development choices
8) Apply mediation and other dispute resolution techniques to resolve recovery policy issues
   a. Employ a third-party mediator to modify Open Space regulations
9) Enhance existing plans to improve resilience

The CPAT members wish to express their gratitude to the people of Lyons who not only served as gracious hosts, they provided insightful comments throughout the process and exhibited a sense of community and dedication that is a critical part of becoming more resilient. We hope that the recommendations found in this report, coupled with the Town’s strong and enduring community spirit, dedicated staff and citizenry, and commitment to a participatory decision-making process will help to ensure that Lyons remains what makes it such a special place while at the same time recognizing that tangible steps need to be taken to reduce flood hazard risk and increase disaster resilience.
PROJECT OVERVIEW

In September 2013, atmospheric conditions including a slow-moving cold front and warm monsoonal air from the south collided in northern Colorado resulting in disastrous flash flooding across several Front Range communities, including Lyons.

Later that month, APA’s Community Assistance Program received a message from one of its members, Dale Case, AICP, Director of Boulder County’s Land Use Department. He inquired about the possibility of a CPAT assisting one of the County’s two incorporated communities affected by the flooding. After some conversation about the possibilities for assistance, APA began working with Anne Miller, AICP, Senior Planner with Colorado’s Department of Local Affairs (DOLA). Additional conversations included representatives of the U.S. Federal Emergency Management Agency’s (FEMA) Community Planning and Capacity Building Recovery Support Function. Miller worked with the Town of Lyons to develop a scope of work and complete an application to the CPAT program. Rosi Dennett, AICP, Housing Coordinator for Lyons and local resident, submitted the application. Unlike most CPATs whereby communities cover direct costs, APA made a decision to cover all costs associated with the Lyons project. Work started soon after the application was approved.

The team leader Gavin Smith, AICP and APA staff member Ryan Scherzinger conducted a three-day site visit in February 2014. Upon arriving, they visited the University of Colorado Denver (CU Denver), where Smith gave a lecture to graduate planning students. At the time, the students, under the direction of their professor and eventual CPAT member, Andrew Rumbach, were in the process of assisting the Town of Lyons with data collection and other analyses as part of a spring semester course. While at CU Denver, Smith and Scherzinger met with Chantal Unfug (Director, Division of Local Government, Colorado Department of Local Affairs) and Iain Hyde (State Disaster Recovery Manager, Colorado Division of Homeland Security and Emergency Management) followed by a meeting with a team of FEMA representatives.

The next day, Smith and Scherzinger met with the Lyons Recovery Advisory Committee followed by a tour of the flood-affected areas. During lunch, they met with a larger group of the resident-led Recovery Advisory Committee to discuss pressing issues and determine how the CPAT could assist their ongoing recovery planning process. Before leaving, Smith and Scherzinger met with a smaller Recovery Work Group to fine tune the CPAT project’s scope of work.

Following the site visit, Smith worked closely with team member, Rumbach, who also serves on the Lyons Recovery Advisory Committee made up of Lyons staff, mayor, and other advisors (FEMA, DOLA, and CU Denver/Rumbach) to further revise the scope of the project. Rumbach’s work on the committee provided the team with new information and regular updates throughout the CPAT process. The team remained flexible and responsive to the needs of Lyons and its residents. Anne Miller from DOLA was also instrumental as a liaison between the CPAT and Lyons throughout the lead-up to the full team’s visit.

Smith and Scherzinger identified and confirmed the remaining team members, Darrin Punchard, AICP and David Perkes, following the site visit. The team conducted several conference calls to discuss the project and exchanged information through emails, phone conversations, and a file-sharing service. The team also worked with the community to arrange appropriate dates for the visit as well as scheduling and organizing the team’s daily activities (see the schedule provided on page 7).

The full team arrived in Lyons on the morning of Monday, May 12, 2014 and they spent a week conducting meetings with Lyons residents and federal, state, and local government officials. They toured the town, including the Confluence area of the St. Vrain River with an eye toward understanding how the flood impacted the community. They reviewed existing plans and other background information collected by the CU Denver students and listened to local officials and residents describe their concerns. Based on this information as well
# Lyons Community Planning Assistance Team  
**May 12-16, 2014**

<table>
<thead>
<tr>
<th>TIME</th>
<th>ACTIVITY</th>
<th>WHO</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MONDAY, MAY 12</strong></td>
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</tr>
<tr>
<td>9:00 - 10:00 AM</td>
<td>Orientation meeting: Flood impact, recovery efforts, background information…</td>
<td>CPAT, Recovery Advisory Committee</td>
<td>Town Hall</td>
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<tr>
<td>10:00 AM - 12:00 PM</td>
<td>Tour of Lyons, flood-affected areas</td>
<td>CPAT, Town staff</td>
<td>Lyons</td>
</tr>
<tr>
<td>12:00 - 2:00 PM</td>
<td>Working lunch</td>
<td>CPAT</td>
<td>TBD</td>
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<tr>
<td>2:00 - 4:00 PM</td>
<td>Stakeholder meetings</td>
<td>CPAT, Stakeholders</td>
<td>OEM Office</td>
</tr>
<tr>
<td>4:00 - 5:00 PM</td>
<td>Strategy meeting to refine scope, finalize community meeting agenda</td>
<td>CPAT</td>
<td>OEM Office</td>
</tr>
<tr>
<td>5:00 - 5:30 PM</td>
<td>Break</td>
<td>CPAT</td>
<td></td>
</tr>
<tr>
<td>5:30 - 7:00 PM</td>
<td>Team sits in on updates to Lyons Board of Trustees on recovery projects (infrastructure, streams, health and human services)</td>
<td>Board of Trustees, Task Force/Commissions</td>
<td>Roger’s Hall</td>
</tr>
<tr>
<td>7:00 - 8:00 PM</td>
<td>Opening presentation/Community meeting</td>
<td>CPAT, Boards &amp; Commissions, Confluence area residents, public, Board of Trustees, Recovery Steering Committee</td>
<td>Roger’s Hall</td>
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<tr>
<td><strong>TUESDAY, MAY 13</strong></td>
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<tr>
<td>9:00 - 10:00 AM</td>
<td>Stream stakeholder meeting</td>
<td>CPAT</td>
<td>OEM Office</td>
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<tr>
<td>10:00 AM - 12:00 PM</td>
<td>Stakeholder meetings with Confluence area residents</td>
<td>CPAT</td>
<td>OEM Office</td>
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<tr>
<td>12:00 - 1:00 PM</td>
<td>Lunch</td>
<td>CPAT</td>
<td>TBD</td>
</tr>
<tr>
<td>1:00 - 7:00 PM</td>
<td>Discussion/Working session</td>
<td>CPAT</td>
<td>OEM Office</td>
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<tr>
<td>7:00 PM</td>
<td>Dinner</td>
<td>CPAT</td>
<td>TBD</td>
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<tr>
<td><strong>WEDNESDAY, MAY 14</strong></td>
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<tr>
<td>9:00 - 10:00 AM</td>
<td>Working session</td>
<td>CPAT</td>
<td>OEM Office</td>
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<tr>
<td>10:00 - 11:00 AM</td>
<td>Discussion</td>
<td>CPAT, Advisory Committee</td>
<td>Town Hall</td>
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<tr>
<td>11:00 AM - 1:00 PM</td>
<td>Working lunch</td>
<td>CPAT</td>
<td>TBD</td>
</tr>
<tr>
<td>1:00 - 5:00 PM</td>
<td>Working session</td>
<td>CPAT</td>
<td>OEM Office</td>
</tr>
<tr>
<td>5:00 - 6:00 PM</td>
<td>Confluence area residents meeting</td>
<td>CPAT</td>
<td>Town Hall</td>
</tr>
<tr>
<td>6:30 - 7:30 PM</td>
<td>Working dinner</td>
<td>CPAT</td>
<td>OEM Office</td>
</tr>
<tr>
<td>7:30 - 9:00 PM</td>
<td>Working session to refine concepts and recommendations; begin final presentation</td>
<td>CPAT</td>
<td>OEM Office</td>
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<tr>
<td><strong>THURSDAY, MAY 15</strong></td>
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<td>9:00 AM - 12:00 PM</td>
<td>Working session</td>
<td>CPAT</td>
<td>OEM Office</td>
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<tr>
<td>12:00 - 1:00 PM</td>
<td>Lunch</td>
<td>CPAT</td>
<td>TBD</td>
</tr>
<tr>
<td>1:00 - 4:00 PM</td>
<td>Working session</td>
<td>CPAT</td>
<td>OEM Office</td>
</tr>
<tr>
<td>4:00 - 5:00 PM</td>
<td>Review final presentation</td>
<td>CPAT</td>
<td>OEM Office</td>
</tr>
<tr>
<td>5:00 - 6:00 PM</td>
<td>Break</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6:00 - 7:00 PM</td>
<td>Set up for final presentation</td>
<td>CPAT, Advisory Committee</td>
<td>School</td>
</tr>
<tr>
<td>7:00 - 8:30 PM</td>
<td>Public presentation</td>
<td>CPAT, public, etc.</td>
<td>School</td>
</tr>
<tr>
<td>8:30 PM...</td>
<td>Social time</td>
<td>CPAT, Advisory Committee</td>
<td>Oskar Blues</td>
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<tr>
<td><strong>FRIDAY, MAY 16</strong></td>
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<tr>
<td>9:00 - 10:00 AM</td>
<td>Debrief; final assignments and timeline</td>
<td>CPAT</td>
<td>OEM Office</td>
</tr>
<tr>
<td>10:00 - 11:30 AM</td>
<td>Debrief meeting</td>
<td>CPAT, Mayor, Town Administrator</td>
<td>OEM Office</td>
</tr>
<tr>
<td>11:30 - 1:00 PM</td>
<td>Lunch - State Resiliency Strategies</td>
<td>CPAT, State of Colorado Leadership (Colorado Recovery Office, DOLA, OEM)</td>
<td>TBD</td>
</tr>
<tr>
<td>2:00 PM...</td>
<td>Team members depart</td>
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as the team’s own observations, they created recommendations intended to inform the recovery process. The team’s final presentation, which is the precursor to this report, is available on the APA website: www.planning.org/communityassistance/teams/lyons/

**BRIEF HISTORY OF LYONS**

The Town of Lyons was incorporated in 1891 and is located on the Front Range of the Rocky Mountains in Boulder County, Colorado, approximately 50 miles northwest of Denver and 12 miles north of Boulder. At an elevation of 5,374 feet, Lyons is home to approximately 2,000 people. The north and south tributaries of the Saint Vrain River meet in Lyons, which makes it popular among kayakers, fishermen, and other water-based recreational users. Lyons is frequently referred to as the “Double Gateway to the Rockies” for its dual highways (US 36-66/North St. Vrain Highway and SH 7/ South St. Vrain Highway) that leads travellers into Rocky Mountain National Park and the Town of Estes Park. Lyons is a vibrant arts and music community with a number of historic buildings featuring local red sandstone.

Some settlers were originally attracted to the mountains as they searched for gold. Lyons never actually had any gold mines, but nearby towns such as Gold Hill and Jamestown experienced significant and rapid growth related to the local gold rush. Others came to Lyons to improve their health. Edward S. Lyon and his wife Adeline came to the area in 1880 from Putnam, Connecticut, following the advice of their doctor. E.S. Lyon sold shares of his 160 acres, attractive to buyers for its durable salmon-red sandstone, a popular building material. E.S. Lyon partnered with Hiram Sawyer and Griff Evans to form two companies: the Evans Townsite Company and the Lyon Rock and Lime Quarry Company. The new quarry town, named after E.S. Lyon, was platted in 1882.
Quarries quickly became a booming business taking advantage of the supply of distinctive sandstone. About 1,000 tons per day were quarried by hand or simple machinery during the late nineteenth century. In 1884, the Denver, Utah and Pacific Railroad built a narrow gauge track into Lyons to ship the sandstone east to places such as Chicago where it was used in the construction of brownstone houses. Locally, the sandstone provided a variety of uses including rubble for railroad ballast and flagstone for sidewalks, curbs and gutters as well as regional institutions such as the University of Colorado at Boulder.

Cement began to replace stone as a building material in the early part of the 20th century, which greatly reduced local employment opportunities over time. The population of Lyons eventually dropped to half of its earlier size. Located just east of Lyons, CEMEX, a large building materials supplier and cement producer, is the largest industry in the area today. Cattle ranches and farms still exist around Lyons. Many of the health resorts that once drew people to the region have been converted to motels and resort areas for tourists. Lyons also contains a number of small businesses and is known for its antique shops.

Images 3 & 4: Lyons never produced gold like other nearby towns, but grew in the latter part of the nineteenth century as a result of red sandstone quarries. Source: Lyons Historical Society
LIVING WITH THE SAINT VRAIN

In September 2013, more than 17 inches of rain fell along the Colorado Front Range, causing widespread flooding across the region. The Town of Lyons was at the epicenter of the disaster. Lying at the confluence of the North and South St. Vrain Creeks, large parts of Lyons were in the direct path of the flood. By the evening of September 11th, the volume of water in the St. Vrain Creeks was 10 times its normal amount.

Because of damage to local and regional utilities and infrastructure, Lyons was cut off from its neighbors and left without power, telephone service, and potable water. The entire Town was forced to evacuate on September 14th, 2013, and the first residents were not allowed to return until late October.

The floods killed one of the local residents, a retired school teacher. Hundreds more were emotionally injured. The flood damaged or destroyed more than 200 homes, displacing more than 15% of the Town's population. The Town's infrastructure was particularly hard hit, including water, sewer and gas lines, communication lines, roads, and bridges. The wastewater treatment plant was significantly damaged, and the public works facility was destroyed. Much of the Town's parks and trail systems, major economic drivers for the area, were rendered inoperable due to the destructive force of the floodwaters and resulting debris field of mud, vegetation, and stone. Small businesses were forced to shut down for 6 weeks or more, and as a result, saw a significant decline in sales after reopening. Several historic structures were significantly damaged or destroyed, including the Town library which was located in a historic train depot. The school system was forced to close for three months because of the lack of utilities, and was moved to Longmont for the fall semester.

Due to the widespread impacts of the flood, the Town has an unprecedented amount of work to accomplish over the next several years. Critical infrastructure systems will require major repairs or total reconstruction. The parks, trails, and open spaces in the area will need to be redesigned to reflect post-flood realities. Several public facilities, including the public works building, will need to be relocated outside of the floodplain. Perhaps most significantly, the Town needs to develop a housing reconstruction strategy to include identifying parcels of land for new housing to replace homes that were lost or damaged during the flood, or that will be acquired through the voluntary “buyout” process.

Following the flood, Lyons undertook an intensive recovery planning process, which produced the Lyons Recovery Action Plan. The plan identifies more than 60 recovery action items or policies to be implemented within the next several years. The Recovery Action Plan is being implemented by a local government with limited staff and financial resources. The Town's “rainy day” reserves have run dry, and cash flow is a major concern, especially as revenue streams are sure to decline in the short-run.

IMPACT ON HOUSING

The flood has had a significant impact on Lyons's existing housing stock, especially low and moderately-priced housing. Prior to the flood, Lyons had a housing stock of approximately 900 units, with 72% owned and 28% rented. Like most communities in Boulder County and the Front Range, affordability was a major challenge before the flood; home prices reached historic highs, and rental availability was at a 12-year low when the flood struck.

The flood damaged or destroyed 168 stick-built homes and 43 mobile homes. The majority of damage to structures occurred in the Confluence area and along the St. Vrain River corridor. As of February 2014, 145 households (310 persons) were still displaced, largely due to a lack of affordable housing. Adding to the difficulty of returning home, the median income of displaced households is 50% lower than the median income for Lyons as a whole.
Images 5 & 6: A bird’s eye view of Lyons before and after the September 2013 flood illustrates the scope of the disaster. Sediment and debris from the high-velocity St. Vrain River was deposited across the Town as the floodwaters spread well outside of its channels. Source: Boulder County
LACK OF DEVELOPABLE LAND

One of the unique factors constraining the Town’s physical recovery is the lack of developable land outside of the floodplain. For several decades, the Boulder County Open Space program has aggressively purchased land surrounding the Town of Lyons, including within the Town’s planning area. This, combined with a historic growth in housing demand, has left the Town with virtually no developable land to relocate housing or critical public facilities that are located in the floodplain. The few parcels or lots that do exist are constrained by conservation easements, terrain unsuitable for development, or extremely high prices that make it difficult for the Town to purchase them. Other lots that are available in the Town would require a change in their current use and/or permitted use under existing zoning regulations.

DISASTER RISK REDUCTION IN THE CONFLUENCE: OPERATIONALIZING RESILIENCE IN THE TOWN OF LYONS, COLORADO

This project focused on disaster recovery and hazard mitigation in the Confluence area of Lyons, Colorado (see Map 3). The project team identified and visually depicted recovery scenarios that achieve hazard mitigation through various combinations of land acquisition and on-site housing repair and rebuilding strategies. Further, the CPAT recommended potential housing, land-use, and hazard mitigation policies and projects that are grounded in national best practices and that will leverage local, state, and federal resources.

The Confluence area was severely impacted by the 2013 flash floods. Besides widespread damage to infrastructure and the natural environment, the Confluence suffered significant damage to its housing stock. Given the severity of the floods and the location of the neighborhood in the floodplain, the long-term recovery of the Confluence area will likely include some combination of on-site repair and property acquisition through
the FEMA Hazard Mitigation Grant Program and other sources of funding. The CPAT advised the Town of Lyons on both fronts; to include the identification of best practices for mitigating risk through housing repair and reconstruction, and how acquired properties could be used to support recovery and long-term community resilience.

The CPAT approached these issues in several ways. First and foremost, the team grounded its recommendations in an analysis of Lyons and the Confluence area, through background research on existing conditions (including available Town plans and policies), up-to-date analysis of available recovery resources, and conversations with Confluence residents and Lyons staff. The team based its recommendations on the most up-to-date information on which properties might be acquired as well as some speculative scenarios that spanned varying levels of on-site repair versus acquisition. The CPAT ensured that the proposed recovery and hazard mitigation options were nested within the larger guidance and planning framework already in place for the Town. The proposed recovery scenarios were conveyed visually through architectural and landscape renderings at varied scales that were intended to convey what these options might look like.

Specific planning tools assessed included: the comprehensive plan, zoning ordinance, growth management ordinance, floodplain ordinance (including associated flood insurance study, Flood Insurance Rate Maps, elevation certificates), site plan review, subdivision ordinance, special purpose ordinances (stormwater, steep slope, wildfire), building code, erosion and sediment control, and capital improvements program. The team also reviewed The Lyons Parks, Open Space, and Trails Master Plan as well as the Boulder County Open Space Management Plan. The hazard mitigation options identified in this report could be used to strengthen and operationalize the Town’s hazard mitigation section of the 2008 Boulder County Multi-Hazard Mitigation Plan.

In addition, the CPAT assembled relevant materials to describe how the proposed policies and projects could be implemented. Examples included: 1) best practices identified in other flood-affected communities; 2) documents describing the varied hazard mitigation options identified; and 3) technical bulletins written by FEMA.
and others that give local officials (public works, building code officials, planners, floodplain administrators), builders, consultants, engineers, architects, and residents information regarding how to implement proposed hazard mitigation options.

**HOW DID THE CPAT ARRIVE AT ITS RECOMMENDATIONS?**

The recommendations included in this document were the product of several months of preparation, followed by a week-long on-site visit by the CPAT team. Beginning in January of 2014, Gavin Smith (CPAT team leader) and Ryan Scherzinger, Senior Outreach Associate at APA, coordinated with the Town of Lyons to assess local conditions and create a collaboratively developed scope of work in partnership with Town officials. During the course of their site visit in February, Smith and Scherzinger were given an overview of the flood by the Town Administrator as well as a guided tour of Lyons and the flood-impacted areas. They also met with local leadership including the Mayor, Board of Trustees members, and the Lyons Recovery Advisory Committee.

During the same visit, Smith and Scherzinger met with state recovery officials including leadership from the Colorado Division of Homeland Security and Emergency Management and the Department of Local Affairs. An important topic of conversation during these meetings was the State’s plans and policies for various housing recovery funding sources, including the administration of the FEMA Hazard Mitigation Grant Program and the U.S. Department of Housing and Urban Development’s Community Development Block Grant Disaster Recovery Program. The CPAT also met with representatives from FEMA’s Community Planning and Capacity Building Recovery Support Function, who worked with Lyons to develop their Recovery Action Plan.

After the preliminary visit, Smith drafted a scope of work, and with APA’s assistance, assembled a national team of experts. The preliminary scope of work, which focused on developing a broad set of recovery recommendations for the Town, was delivered to Lyons staff and the Recovery Advisory Committee in February 2014. The staff and committee reviewed the draft scope of work, and based on their feedback, the CPAT further revised the proposal to focus on the Confluence area and housing recovery, property acquisition, and the restoration of the stream corridor.

The CPAT prepared for their field visit by assembling and reviewing key documents related to the Town of Lyons and flood recovery. These included the Town’s 2010 Comprehensive Plan update, the Parks and Trails Master Plan, local ordinances and regulations related to floodplain development, the Lyons Recovery Action Plan, the Town’s “unmet needs” assessment, the state recovery strategy, and newspaper articles about local flood recovery efforts (for a more complete description of the team’s analysis of local plans and policies, see Section II of this report - Local Plan and Policy Review). The team also reviewed aerial imagery of the flood and maps that highlighted the patterns of housing damage relative to the Confluence area. Throughout this preparatory period, students and faculty at the University of Colorado Denver assisted the CPAT by assembling materials and acting as liaisons between the Town and the team.

During the week-long on-site visit that followed the preliminary data collection phase, the CPAT met with a range of stakeholders from Lyons and the Confluence area. Three meetings were particularly important as they helped to refine proposed tasks and further inform the team’s work. The first meeting was with Town leadership and staff, including the Town Administrator, elected leadership, parks director, Town engineer, chair of the Planning Commission, and members of the Housing Recovery Task Force. Lyons staff provided the CPAT with invaluable information about the Town’s development trajectory before the flood, key issues facing the Town with regards to housing and economic development, and the value of the parks and outdoor amenities to the local economy and overall quality of life.

The second meeting included a public presentation by the CPAT to the Lyons Board of Trustees and general public on the evening of May 12. The meeting was advertised in the local newspapers and by the Town,
and was held in conjunction with a presentation by the local watershed coalition about stream restoration planning. At this public meeting, the CPAT introduced themselves and their proposed scope of work for the week, shared general lessons about flood recovery (emphasizing the challenges associated with dynamic river environments), and held an extended question and answer session with the 50-60 persons in attendance. Participants ranged from elected officials to local business owners to flood-impacted households, and the discussion was similarly diverse. Overall, the team learned a great deal about major recovery priorities and, in particular, hopes and concerns about the rebuilding of the Confluence area, including associated sites for housing replacement. A major topic of conversation was what the Town might do with parcels acquired through the “buyout” program, and what kind of uses would be most appropriate for neighbors and the Town as a whole.

A final meeting was held between the CPAT and the Confluence neighbors, a group representing flood-affected homeowners and renters. At this meeting, participants discussed ongoing issues with housing recovery, top priorities for neighborhood redevelopment, general feelings about the “buyout” program and other housing recovery policies and programs, and a host of other topics. The meeting helped the CPAT gain a greater understanding of what some of the most impacted households valued about their community, and what they hoped to see emerge from the recovery process. Similar to Monday’s community-wide meeting, another important topic of conversation was what to do with properties acquired through the buyout program.

Each of the meetings and other forms of information gathered throughout the process helped to inform our final recommendations, including the analysis of relevant planning and policy documents collected by the CPAT, which are discussed next in Section II.
II. LOCAL PLAN AND POLICY REVIEW

One of the initial tasks completed by the CPAT team was to conduct background research and analysis on the Town’s existing planning and regulatory framework to include the collection of adopted plans and policies that guide community development as well as existing resources and priorities for post-flood recovery. This task helped the team gain an understanding of the Town’s vision for the future, before and following the flood event, in addition to the goals, objectives, and specific initiatives in place to help achieve that vision. The primary purpose of the analysis was to help ensure that the team’s recovery scenarios and recommendations were grounded in an awareness of previously established guiding principles and consistent with existing plans and instruments germane to policy implementation. The task also provided the team with the opportunity to identify and evaluate potential gaps, conflicts, synergies or opportunities for the enhancement of local plans and policies while moving forward with the long-term recovery and redevelopment of Lyons.

The team’s research activities included the creation of an inventory of relevant Town planning documents and up-to-date information on available disaster recovery programs. Much of the resource inventory was developed prior to the team’s visit to Lyons, which provided the opportunity for the team to review the documents in advance of the week-long site visit. The team also had several conversations prior to and during the site visit with officials from state and federal agencies including the Colorado Department of Local Affairs, Colorado Department of Public Safety, and FEMA.

PLANS AND POLICIES REVIEWED
The CPAT inventory included a review of the following key plans and policies:

- **Lyons Comprehensive Plan** (March 2010). The comprehensive plan is the primary long-term planning document for the Town, providing the framework for decisions that affect the Town’s physical, social, and economic characteristics. It is intended to provide a foundation for policy direction, land use decisions, and public investments. It is also meant to help the Town prioritize and direct resources toward special initiatives that will help achieve community goals.

- **Recovery Action Plan** (March 2014). The Recovery Action Plan, which represents the Town’s vision and roadmap to long-term recovery, was developed following an intensive collaboration process that spanned three months beginning in December 2013. The plan identifies a series of recovery goals, objectives, and actions prepared by eight different community-based Recovery Working Groups (RWGs) tasked with identifying issues, idea generation, and recovery project identification. Staff from the Colorado Department of Local Affairs and FEMA’s Community Planning and Capacity Building team provided technical assistance throughout the development of the Recovery Action Plan.

- **Boulder County Multi-Hazard Mitigation Plan** (August 2008). The purpose of this multi-jurisdictional plan is to guide hazard mitigation efforts, including the Town of Lyons, to help decision makers identify mitigation activities and resources before and after disasters. The plan was also developed to ensure that the County and all participating jurisdictions remained eligible for certain types of federal disaster assistance, including FEMA’s Hazard Mitigation Assistance (HMA) programs.
• **Sustainable River Corridor Action Plan** (May 2014). This plan was prepared by the Town of Lyons Ecology Board following the September 2013 flood to provide a vision for sustainably restoring the Lyons river corridor. The plan incorporates the guiding principles and the sustainable design and development principles of the Lyons Comprehensive Plan, and while prepared in response to the flood, it is meant to serve as a foundation for developing a St. Vrain River Corridor Master Plan as called for in the Comprehensive Plan.

• **Flood-Proofing, Flood Damage Prevention Regulations – Chapter 7 of Article 8 of the Lyons Municipal Code** (October 2012). This policy document serves as the Town’s flood damage prevention ordinance in conformance with the National Flood Insurance Program and the State of Colorado’s model code for floodplain damage prevention. It specifies the legal requirements and development regulations to be enforced by the Town with regard to all new construction and substantial improvement to properties located in mapped special flood hazard areas, with the purpose of promoting the public health, safety, and welfare and minimizing public and private losses due to floods.

• **Town of Lyons Housing Needs Assessment** (February 2014). This report describes the results of a housing needs assessment completed in January 2014, funded and coordinated by the Boulder County Housing Authority. The purpose of the assessment was to gain an understanding of the housing needs and preferences of all residents, including those who were displaced as a result of the flood; inform the creation of a housing replacement strategy; identify and quantify pre-flood housing problems in Lyons, such as housing affordability, and how these problems may have been impacted by the flood; and support applications for financial assistance.

The resource inventory included several other publications and map figures that are not fully described here, but were helpful to the CPAT team, including:


• **Unmet Need Identification Project, Local Impact and Priority Survey** (December 2013). Prepared by Town of Lyons for Colorado Department of Local Affairs.

• Maps, photos, and aerial imagery showing pre-flood and post-flood conditions, made available through various sources.

• Neighborhood map illustrating the level of interest among Confluence area property owners in a potential acquisition (buyout) project targeting flood-prone housing.

**METHODS**

While each member of the CPAT reviewed the plans, policies, and resources included in the resource inventory, a more detailed analysis and team discussion was completed during the team’s site visit in Lyons. To assist in the facilitation and documentation of this effort, the team created a spreadsheet containing 191 relevant goals, objectives, and actions from the following documents:

• **Lyons Comprehensive Plan**

• **Recovery Action Plan**

• **Boulder County Multi-Hazard Mitigation Plan**

• **Sustainable River Corridor Action Plan**

The spreadsheet was designed to store and readily access key plan and policy information, but more importantly, it aided in the review of consistency across existing planning policies and helped to inform the recovery scenarios and associated recommendations being made by the team. For each goal, objective, and action included in the spreadsheet, the team identified the most relevant recovery theme (if applicable) that had been...
In completing the consistency review, the team considered the degree to which the various recovery scenarios and recommendations could affect each goal, objective or action in the spreadsheet and classified each according to one of the following four classifications: (1) Strongly Supports; (2) Helps Achieve; (3) Neutral; (4) Possible Conflicts; and (5) Not Consistent. Consistency determinations were used to help the team ensure that its recommendations were grounded in an awareness and appreciation for the Town’s existing plans and policies.

The spreadsheet also served as a repository for the observations, notes or suggestions made by the team during its policy and plan review, and it is intended to serve as a resource for the Town of Lyons to use upon completion of the CPAT project, thereby facilitating the monitoring and updating of recovery activities over time. Specific actions included the identification of possible opportunities to bolster the integration of hazard risk and resilience in the Lyons Comprehensive Plan, Recovery Action Plan, Multi-Hazard Mitigation Plan, and Sustainable River Corridor Action Plan during future plan updates or amendments.

![Figure 1: The CPAT spreadsheet of relevant goals, objectives, and actions assisted the team conduct consistency reviews and identify opportunities for further enhancement or integration of hazard mitigation principles in existing local plans and policies.](image)

**FINDINGS AND IMPLICATIONS**

The results of the local plan and policy review indicate that the Town of Lyons has a range of planning instruments in place to help guide future growth and post-flood recovery. Several plan documents with clear vision statements, guiding principles, goals, and objectives have been adopted by the Town following plan development processes that were informed and guided by extensive stakeholder outreach and community engagement.
involvement. These processes occurred both before and following the flood event of September 2013, which not only created a series of new challenges and opportunities, but also exacerbated some pre-existing issues and unmet needs (for example, affordable housing).

Upon completion of the more detailed analysis and consistency review, the CPAT was able to confirm that its final recovery scenarios and recommendations were consistent with the Town's existing plans and policies. Of the 191 individual goals, objectives or actions included in the spreadsheet, it was determined that the CPAT recovery scenarios and recommendations would strongly support 26 (14%) and help achieve another 61 (32%) of existing policies. While the recovery scenarios and recommendations were deemed to be neutral or having no effect on 101 (53%) policies, only two policies were identified that might result in possible conflicts, and one was considered not consistent – each coming from the Recovery Action Plan. The two possible conflicts with the Recovery Action Plan as identified by the CPAT included the objective to “Restore and enhance Bohn Park” (Parks and Recreation Objective 1.2), and the action to “Design and implement the revised Bohn Park master plan” (Parks and Recreation Action 1.2.2). The action considered not consistent was to “Expedite the regulatory review process” (Housing Action 1.1.2), although this may not be inconsistent, if a rapid review process does not hinder the achievement of disaster resilient goals which may require extensive public deliberation. Figure 2 summarizes the results for each plan document included in the analysis.

![Figure 2: The two figures above provide a summary of the results from the CPAT’s local plan and policy consistency review.](image)

The findings of the analysis suggest that the CPAT’s recovery scenarios and recommendations included in this report support and help achieve a number of existing goals, objectives or actions previously adopted or being implemented by the Town of Lyons. More specific information on these linkages is included in Section III (Design-Related Observations & Options) of this report. Section IV (Policy Recommendations) includes a summary of policy recommendations, including opportunities for enhancement identified by the CPAT through the local plan and policy review process.
III. DESIGN-RELATED OBSERVATIONS AND OPTIONS

This section of the report summarizes the observations of the design team and provides a series of associated options the Town may choose to consider during their recovery from the 2013 flood as well as part of an ongoing strategy to advance the concept of resilience. Disaster resilience involves creating and sustaining an adaptive capacity to rebound from a disaster in a timely and desirable manner. Resilience is more than advancing hazard mitigation aims. Disaster resilience also means building an enhanced capacity to adapt to current and future conditions by learning from past events and making changes accordingly. Each of the topics discussed next provide a path to help create a more resilient Lyons. In order to make a sincere and enduring commitment to this goal, each topical area is linked to proposed recommendations as well as existing planning tools and policies already in place as discussed in Section II (Local Plan and Policy Review) of this report.

LIVING WITH THE RIVER, INCLUDING ITS ASSETS AND RISKS

The location and origin of a city shapes its day-to-day life. This is clearly evident in the Town of Lyons, where the confluence of the North and South Branches of the St. Vrain meet, serving as both the Town’s primary natural asset and source of risk (Figure 3). Living with the river means enjoying its assets and understanding and working to protect the community from flood hazard vulnerability. These seemingly contradictory goals are achievable through thoughtful planning and design approaches that are tied to higher order goals and a vision that embraces sustainability and disaster resilience principles.

Figure 3: The confluence of the North and South St. Vrain Rivers is a treasured asset and a source of risk. The CPAT kept both aspects in mind when thinking through design concepts. The rendering above, which depicts the Confluence area and surrounding parts of Lyons, is further explained through additional information below. Created by the CPAT

The 2013 flood brought an increased awareness of these risks and the disaster recovery process should take advantage of this increased awareness to make the community more resilient to the effects of future hazard events. In addition to increasing awareness, Lyons needs to further assess their hazard risk (including data obtained after the flood) and develop or modify plans and policies designed to reduce risk over time. Many
of these planning tools and policies already exist in Lyons and should serve as part of a framework that can be refined over time as new information becomes available and post-disaster resources are used to assist in the implementation of this integrative vision. More specifically, information from the risk analysis should be factored into policies, land use options, and design features that preserve the high quality of life that those living in Lyons expect while at the same time striving to live in greater harmony with the river and its inherent dynamism.

**LIVING WITHIN AND ADJACENT TO THE FLOODPLAIN**

While the Flood Insurance Rate Maps (FIRMs) are in the process of being revised by FEMA, temporary advisory maps have not been created. Often times these post-flood provisional (non-regulatory) flood hazard maps can be used to help inform those seeking to rebuild and to guide local development policies following a disaster. Uncertainty with the maps should not stop the development and implementation of recovery plans. There is little doubt that the new FIRMs will expand the floodplain’s footprint. The design proposal for working in the floodplain includes: (1) continue to provide information to property owners in the floodplain so that they can make informed decisions about whether or not they want to rebuild; (2) continue to track the property that is slated for acquisition so that the Town and community can be informed; (3) provide multiple options to Town officials and residents regarding the potential use of the vacant land once homes are purchased and demolished; (4) design bridges to make them less susceptible to damage and damming associated with flood-borne debris flows; (5) consider a road on the boundary of the floodplain south of the river from Highway 7 to Bohn Park to create better access to the land south of the river and to use the raised road bed to divide land in the floodplain that is best left undeveloped from land outside of the floodplain that is well-suited for development (*Figure 4*).

![Figure 4: The proposed design features are intended to create new recreational opportunities, enhance the local economy, improve walkability, connect neighborhoods, and protect residents from future floods.](Figure 4)

*Created by the CPAT*
ENHANCING THE RIVER LANDSCAPE AND TRAIL SYSTEM: RIPARIAN BUFFERS AND PUBLIC ACCESS

Restoring the river landscape is a high priority. Because restoration activities will take place on existing or newly transferred public property, as well as private property, a detailed riparian landscape restoration plan is needed. It is critical that the plan facilitate a reciprocal sharing of information to include the provision of technical assistance to private property owners and their active engagement in the decision-making process. A primary recommendation is to create a public trail along the river that would start at Meadow Park, cross a proposed pedestrian bridge to the south bank, follow the North St. Vrain to the confluence, meet with the existing trail along the South St. Vrain, cross a proposed bridge where 4th Avenue extends to cross the South St Vrain, and join the existing trail system in Bohn Park (Figures 4 & 5).

BEST PRACTICES

For more information on the linkage between riparian buffers and public access following a large-scale housing relocation program, see the Kinston, North Carolina case study:


Figure 4: A new trail system could serve as a riparian buffer, improve recreational opportunities, and increase public access to adjacent neighborhoods and downtown. Created by the CPAT

Figure 5: A new trail system could serve as a riparian buffer, improve recreational opportunities, and increase public access to adjacent neighborhoods and downtown. Created by the CPAT
EXPANDING LYON’S LEGACY OF PARKS AND OPEN SPACE: REDEFINING THE PARK SYSTEM

Some of the property owners of the land between 4th Avenue and the river plan to participate in the FEMA Hazard Mitigation Grant Program, which would result in transforming their property to public open space. One of the questions addressed by the CPAT is, “How would a new park at the confluence of the two forks of the St. Vrain be used?” The land in question, which comprises approximately ten acres, is located in the floodplain, of which some properties are located in the regulatory floodway. The CPAT did not recommend a singular use for the Confluence area. Instead, a range of uses (from most intensive to least intensive) were presented as a way to help the community decide what they believe are the best options. In addition to activity level, the Town needs to consider the degree to which the area may create income. The range of uses from least to most active may parallel income generating potential. The uses presented from least to most active are: (1) natural landscape; (2) neighbor garden; (3) community garden; (4) art installations; and (5) camping (and/or waterpark) (see Figure 6).

Figure 6: Land use decisions involve a range of intensities and opportunities to generate income. Created by the Lyons CPAT

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1 Floodway (Regulatory Floodway): The channel of a river or other watercourse and adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. The Colorado statewide standard for the designated height to be used for all newly studied reaches shall be one-half foot (six inches). Letters of Map Revision to existing floodway delineations may continue to use the floodway criteria in place at the time of the existing floodway delineation.
The proposed Confluence Park is shown as part of a system of interconnected Town parks, including: Meadow Park, Sandstone Park, and Bohn Park (Figure 7). Meadow Park is a very popular place for the community and outside visitors. The park is being rebuilt in a way that supports past activities. Some community feedback suggests that the park is over-used by outside visitors, making it hard for residents to enjoy. One option to consider is to provide Lyons residents free or inexpensive park passes to encourage local use, and require out-of-town visitors to pay a fee to use the park. Such an approach is often used in beach communities and could bring income to the Town while reducing the total number of visitors, allowing for more local use. The CPAT designers also recommend the addition of a pedestrian bridge in Meadow Park that connects to the south bank as part of the river trail described above, thus improving resident access across neighborhoods.

Sandstone Park is a welcoming place for the many families driving through Downtown Lyons. The park’s connectivity to the river is limited, however. The proposed bridge on 4th Avenue is intended for pedestrians, bicycles, and cars to connect the river to Sandstone Park and hence to Downtown (see Figure 7). The CPAT designers suggest building a wall of river stones along the north edge of the park to make it safer for children playing in an area that is adjacent to Broadway Street. The stone, which was washed from the river and deposited in parks and neighborhoods, would serve as a monument to the disaster, those involved in the recovery process, and the Town’s effort to be sustainable through the adaptive reuse of native materials. The slope of the park away from Broadway Street would allow the ground on the park side of the wall to be slightly lower than the ground on the street side. Thus the stone wall would be tall enough to keep kids safe on the park side and low enough to see over the wall from Broadway Street.

The ball parks, playground, trails, and picnic sites in Bohn Park provide good examples of sound land uses in the floodplain and should remain – leaving the higher ground to the south for potential development. A new road and bridge is recommended to connect Bohn Park with 4th Avenue and to Downtown, thereby providing enhanced access.

BEST PRACTICES
For more information on the use of flood-prone housing acquisition programs to develop greenways and public parks, including those in Charlotte, North Carolina and Tulsa, Oklahoma, see:


Some of the property owners located between 4th and 5th Avenues have expressed an interest in the acquisition and demolition of their homes and the conversion of the lots to public open space. Other property owners located in the same neighborhood have repaired or rebuilt their homes. An important question addressed by the CPAT is, “How can the vacant lots be used in a way that advances disaster resilience while preserving what makes Lyons a special place to live, work, and play?” Variations in lot size and use significantly influence potential options. Some of the larger lots that may be converted to open space include mobile home park property that house low-income residents. In other cases, individual lots are located adjacent to residents who have chosen to stay. As with the Confluence Park land, the CPAT did not recommend a singular use for the vacant lots. Instead, a range of uses were presented to help the community decide what options were most acceptable to them.

**BEST PRACTICES**

For more information on the use of open space following housing acquisition projects, see:

RESILIENT HOUSING DESIGN IN THE FLOODPLAIN

Many of the houses located in the study area are in the floodplain. Some homes were deemed substantially damaged and are required to be repaired or rebuilt in compliance with the Town’s local flood damage prevention ordinance. In many cases, this means elevating the homes to one foot above the Base Flood Elevation or one percent chance annual flood event. For those homes receiving less damages, most are being repaired to pre-event conditions. The CPAT suggests that all houses being repaired should consider incorporating resilient design strategies.

Observations from team members concluded that there seems to be some confusion about the construction of foundations in the floodplain. FEMA recommends that foundations in flood plains with water velocity of over 10 feet per second be built so that water can pass under the house without creating a substantial load on the foundation. For foundations with lower velocities, foundations with a crawl space should have appropriately spaced flood vents. It appears that houses are being elevated on solid foundation walls that do not have flood vents and the space beneath the first finished floor are being backfilled.

Three questions should be addressed by the city permitting department. First: Do the solid foundations change the hydrology of the flood plain? Second: Is the backfill strong enough to resist the substantial pressure from moving flood waters? (Backfill is probably not as strong as the reinforced concrete block foundation wall and could allow the wall to deflect and crack even if the fill stays intact.) And third: Will the solid foundations be subject to scouring, thus undermining the footings and causing wall failure? The CPAT recommends a more resilient approach to include foundations that allow water to pass under the structure. One option discussed by the team involved the use of a Gabion wall system (interconnected wire boxes) foundation filled with river stones which would allow water to pass through without compromising structural integrity (see Figure 8). Further research is needed to ascertain whether this approach complies with the standards promulgated under the NFIP.

BEST PRACTICES

For more information on flood resilient housing design, see:

Figure 8: The Gabion wall system is one option that may be possible for building foundations, but research to determine whether it satisfies NFIP standards is needed. In other cases, elevated structures may cover block foundation walls with a veneer of local stone, assuming this type of elevation technique is allowed and appropriately spaced and sized flood vents are used. *Created by the Lyons CPAT*
REPLACING LOST HOUSING: GOALS AND POTENTIAL SITES
The Town of Lyons has made a commitment to help those that were displaced return to the community. Because some people (including mobile home park owners) are not rebuilding in the floodplain, the Town is looking at alternative housing sites. This is a complicated issue for a town that has limited land located outside the floodplain to develop and lacked a sufficient affordable housing stock before the flood, much of which was damaged or destroyed. Given that many of the housing units lost were mobile homes, the team recommends that the Town leadership articulate a better-defined commitment to create and maintain a percentage of affordable housing as part of their long-term housing plan.

Affordable housing is important for the local economy so that people that work in Lyons can live in the community. While there seems to be a focus on locating new housing in the south part of Bohn Park or the adjacent land currently used for a dog park, the CPAT also suggests that sites closer to Downtown should be considered to create a neighborhood that is within easy walking distance of Downtown, thereby linking housing, employment, and commerce. Housing options may include allowing upper floors in Downtown to be converted to residential units with businesses located on the first floor. Another strategy suggested by the CPAT includes seeking a negotiated agreement with Boulder County to transfer development rights to the Town of Lyons in select areas that are designated as County open space, located outside the floodplain, and are located adjacent to Town boundaries (see Section IV - Policy Recommendations).

BEST PRACTICES
For more information about assisting the displaced return home after a large-scale housing acquisition program, see the Kinston, North Carolina case study:

IV. POLICY RECOMMENDATIONS

The following policy recommendations are intended to provide a series of actions the Town of Lyons should consider as they recover from the flood of 2013 and as officials and citizens consider additional future-oriented policies over time. Whenever practicable, the Town should incorporate these policies into existing plans and programs that have regulatory standing in the community or consider creating new policies as appropriate. Examples of key documents worthy of consideration include: the Town of Lyons Comprehensive Plan, Recovery Action Plan, Boulder County Multi-Hazard Mitigation Plan, Sustainable River Corridor Action Plan, and the Town’s Local Flood Damage Prevention Ordinance. For each policy recommendation, we identify best practices that have been adopted by other jurisdictions in order to provide relevant contextual information that may be useful as town officials consider the adoption and implementation of proposed recommendations.

1. IMPROVE THE MAPPING OF FLOOD HAZARD AREAS

An important precondition of any pre- and post-disaster decision-making process should involve the collection of best available data. One of the challenges facing the Town of Lyons is the accuracy of their existing Flood Insurance Rate Maps (FIRMs). The flood of 2013 and subsequent restoration work have significantly altered stream conditions from their pre-flood state. It is suggested that the Town work with the State of Colorado, FEMA, and Boulder County to update their FIRMs in order to account for the changes that have occurred. Given the dynamism of the mountain community’s flood hazards, accounting for changes in the floodplain on a regular basis is important, particularly following major flood events. It is also important to consider new ways to map and convey risk as currently being implemented through FEMA’s Risk MAP program.

BEST PRACTICES
For more information on developing maps that better account for this dynamism, see:

- For more information on the types of flood risk products available through Risk MAP, see FEMA’s site at: http://www.fema.gov/risk-map-flood-risk-products

In addition to natural changes in the river system, the Town should consider how new development may impact the accurate delineation of flood hazards. One option to consider is the development of “future conditions” maps that account for changes in land use and how this may lead to changes in the future demarcation of floodplain boundaries. Projected changes are mapped and used to regulate floodplain development today as if the changes have already occurred. The mapping of future conditions is technically complicated and expensive, but replicable methods do exist. FEMA will not use future conditions mapping in determining flood insurance rates or mandatory purchase requirements, but does allow local jurisdictions to regulate new development to higher standards in the interest of long-term risk reduction.

BEST PRACTICES
For more information on a community that has developed and adopted a future conditions mapping program, see the work done in North Carolina by Charlotte-Mecklenburg Stormwater Services at: http://charmec.org/stormwater/stormwateragencies/pages/floodplainmapping.aspx

For more information on a community that has developed an advanced mapping system and regulates to higher standards, see Roseville, California at: https://www.roseville.ca.us/pw/engineering/floodplain_management/flood_zone_information.asp

In the interim, or in lieu of developing future conditions maps, the Town of Lyons may consider enforcing
development standards to address a 500-year flood. Per the current rules and regulations in Colorado, the 100-year floodplain is the recognized regulatory minimum standard. However, the Colorado Water Conservation Board (CWCB) will designate and approve 500-year floodplain information as the basis for regulatory purposes at the written request of a local authority that maintains jurisdiction over land use policy. This approach does not necessitate the collection of additional data.

The Town of Lyons should seek assistance from FEMA or other partners to develop provisional floodplain maps, advisory base flood elevations, or other proxies to help inform safe rebuilding and development practices. This type of information can be adopted by the Town as advisory or regulatory standards and serve to help inform the wise reconstruction of flood-prone housing and reduce the cost of flood insurance following the adoption of updated FIRM prepared by FEMA. It is worthy of noting that Advisory Recovery Maps have been developed for nearby Jamestown, but not Lyons.

**BEST PRACTICES**

For more information on the development of advisory flood maps, see:

- The Town of Jamestown, Colorado’s flood recovery efforts at: [http://jamestownco.org/flood-recovery-information](http://jamestownco.org/flood-recovery-information)
- The Town of Jamestown’s provisional floodplain map at: [http://jamestownco.org/files/2013/12/Provisional_Floodplain.pdf](http://jamestownco.org/files/2013/12/Provisional_Floodplain.pdf)

While the development of advisory recovery maps provide an important tool that Town officials could use to help inform post-disaster policy choices, other proxies are available. These include the use of hydric soils, high water marks captured after the flood, and flood-borne sand coverage.

**2. ADOPT A POST-DISASTER BUILDING MORATORIUM**

The ability to take stock of a community’s disaster-related impacts and develop thoughtful recovery policies in the aftermath of a disaster takes time. During this time, there is an intense pressure to take action, often with limited information. Striking an appropriate balance between speedy decision making versus thoughtful deliberation is important, particularly when choices need to be made after a disaster that may impact a community’s pre-existing goals. One way to address this issue is through the issuance of a post-disaster building moratorium. The moratorium, which can be located within the Town of Lyons’s Comprehensive Plan or Disaster Recovery Action Plan, empowers the building official, with the backing of the Board of Trustees, to withhold the issuance of post-disaster building permits subject to a review of local damages. This allows officials to take the time needed to assess the nature of damages, consider policy changes (e.g., the adoption of higher standards), and identify additional staff needed to process permit requests and enforce compliance during reconstruction (to include the hiring of temporary employees, contractors or the use of mutual aid agreements with neighboring jurisdictions).

**BEST PRACTICES**

For more information on post-disaster building moratoria, see:

- Hillsborough County, Florida’s Post-Disaster Redevelopment and Mitigation Ordinance at: [http://www.hillsboroughcounty.org/DocumentCenter/Home/View/1051](http://www.hillsboroughcounty.org/DocumentCenter/Home/View/1051)
3. PROVIDE DISASTER RECONSTRUCTION GUIDANCE
The ability to access information regarding the confusing rules governing post-disaster reconstruction activities is often cited as a major concern among individuals living in areas struck by disaster. The development of basic guidance materials, subject to regular updates as conditions and rules change, can help address these concerns. There are a number of places to access this information, including FEMA, state, and local government sources. The ability to compile this information and present it in a way that reflects the unique conditions found in a given community is critically important.

BEST PRACTICES
For more information on disaster reconstruction guidance, see:

4. PREPARE A POST-DISASTER REDEVELOPMENT PLAN AND RECOVERY ORDINANCE
To capture lessons learned and become better prepared to manage the recovery and long-term reconstruction process following future disasters, the Town of Lyons should consider preparing and adopting a plan that identifies policies and procedures to be followed in advance of the next event. The plan should be linked to the Town's Recovery Action Plan and an ordinance that establishes roles and responsibilities for recovery support functions as well as the procedures and operational framework to guide the Town’s post-disaster decision-making process.

BEST PRACTICES
For examples of disaster recovery planning guidance, see:

5. ADOPT HIGHER FLOODPLAIN MANAGEMENT STANDARDS: STRATEGIC DISINVESTMENTS IN THE FLOODPLAIN
5A. RESTRICT AND REMOVE DEVELOPMENT IN THE REGULATORY FLOODWAY
It is strongly recommended that the Town no longer allow new development in the floodway and establish a policy to gradually remove all buildings and infrastructure in this area with the exception of bridges, infrastructure used to convey stormwater or other facilities that can sustainably operate in a floodway. This provision should be included in the Town's Comprehensive Plan and Flood Damage Prevention Regulations. Another option includes the adoption of a strict “zero-rise” standard (versus the current one-half foot rise standard) in the Town's Flood Damage Prevention Regulations to avoid cumulative impacts from any permitted floodway development. Lower allowed flood elevations result in wider floodways, and wider floodways result in less
streamside development and, in effect, serves to establish a setback requirement for new development. It is important to note that communities are entitled to adopt measures that are more stringent than set forth in the State’s rules and regulations for floodways.

BEST PRACTICE
For more information, see the Fort Collins, Colorado case study on pages 21-26 of the following source:


5.b. LIMIT GROWTH AND REMOVE DEVELOPMENT IN THE FLOODPLAIN
The procedures adopted to remove development in the floodplain should recognize that substantial development already exists in this area, including the Confluence neighborhood. Thus, any policies addressing this sensitive issue should consider taking a long-term view. There are a number of strategies to consider, including the acquisition and demolition or relocation of eligible structures through the FEMA Hazard Mitigation Grant Program (and other grant programs identified in the Boulder County Hazard Mitigation Plan), first refusal on the sale of property in the Confluence area, and the transfer of development rights. Strategies to limit growth and remove development in the floodplain must also recognize that there is a limited amount of developable land elsewhere within the boundaries of the Lyons Planning Area – an issue that should be further explored and addressed in coordination with Boulder County as suggested in a later recommendation.

Acquiring homes through the FEMA Hazard Mitigation Grant Program and other grants as identified is an option to address flood-prone structures located in harm’s way. The property, once acquired, is required to be maintained as open space. The use of this land may include parks, greenways, and other less intensive uses that do not involve placing new structures on the site (see Section III, Design-Related Observations and Options). Developing a policy that enables the Town to purchase properties for sale in the Confluence area through right of first refusal provides another tool to help remove structures from flood-prone areas, expand existing park systems, including interconnecting greenways, and restore the natural and beneficial functions of floodplains. The implementation of multi-objective strategies often require the identification of municipal funding sources, such as a dedicated capital improvements program or stormwater management utility to leverage with other outside sources including federal and state grants. The Town of Lyons is uniquely positioned to take advantage of such opportunities through the influx of funding and technical assistance made available following the 2013 flood, in combination with the potential for coordinated land acquisition and park restoration projects.

BEST PRACTICES
For more information on successful multi-objective floodplain management programs, see:

- Charlotte-Mecklenburg County’s Floodplain Buyout Program, at: http://charmec.../stormwater/drainageandflooding/pages/floodplainbuyout(acquisition)program.aspx
- City of Tulsa’s Flood Control and Drainage Program, at: https://www.cityoftulsa.org/city-services/flood-control.aspx

5.c. ADOPT A CUMULATIVE SUBSTANTIAL DAMAGE ORDINANCE
The development of a cumulative substantial damage ordinance, which can be applied to multiple hazards, is most commonly used to further flood hazard risk reduction goals (e.g., disinvestments in the floodplain).
The creation and implementation of this type of ordinance requires developing a baseline from which to begin recording flood-related damages. Most local flood damage prevention ordinances (including the Town of Lyons Flood Damage Prevention Regulations) rely on a single event-based substantial damage provision that, once exceeded, requires that the damaged structure comply with the most recent codes and standards. The cumulative substantial damage ordinance involves tracking the amount (measured as a percent) of damages sustained over time, across multiple events. Once the total exceeds 50% of the structures value, it must be brought up to code. In addition to being adopted as a new provision in the Town of Lyon's Local Flood Damage Prevention Regulations, cumulative substantial damage procedures and associated data should be referenced in the Hazard Mitigation Plan and potentially extended to include damages associated with other natural hazards.

5.d. LIMIT CRITICAL FACILITIES IN THE FLOODPLAIN

It is recommended that the Town expand their local flood damage prevention regulations addressing critical facilities (e.g., Article H, which applies to most facilities, with the exception of wastewater treatment plants and some utility systems), by either, (a) prohibiting critical facilities (e.g., fire and police stations, schools, hospitals, shelters, nursing homes) to be sited in the floodplain or (b) requiring flood-proofing to 2+ feet above base flood elevation. A strategy should also be developed to relocate existing critical facilities located in the floodplain. These structures should be identified and included as future projects in the recommended Town's Hazard Mitigation Plan.

6. JOIN THE COMMUNITY RATING SYSTEM AND NO ADVERSE IMPACT PROGRAM

National Flood Insurance Program regulations are intended to serve as minimum standards for local floodplain management activities. The Town of Lyons should consider participating in two programs that go beyond minimum standards: FEMA's Community Rating System (CRS) and the Association of State Floodplain Managers (ASFPM) No Adverse Impact (NAI) program.

The CRS is an incentive-based program predicated on a community’s willingness to draw from a suite of policy choices that enhance flood hazard risk reduction, including many of the policy options recommended in this report. As specific policies are adopted and actions are taken, credit points are accrued, and once established thresholds are reached, a CRS class rating is provided. As a community’s rating improves an associated premium rate reduction is issued for all flood insurance policyholders in the community. As communities advance through CRS, flood insurance premium rates are discounted in increments of 5% for an entry-level Class 9 community up to a maximum of 45% for a Class 1 community. CRS provides credit points to communities for nearly 100 different activities organized under four categories: (1) Public Information; (2) Mapping and Regulations; (3) Flood Damage Reduction; and (4) Warning and Response.

As of May 31, 2014, there are 102 flood insurance policyholders in the Town of Lyons paying a combined total of nearly $113,000 in annual premiums (an average of just over $1,100 per policy). In considering whether to join the CRS, the Town of Lyons is encouraged to evaluate the benefits of long-term insurance savings to existing and future policyholders versus the Town's costs for program administration. These costs primarily include staff time to manage and keep records of all CRS-creditable activities and to coordinate recertification efforts, duties that must be assigned to a designated local CRS Coordinator. Considering that the Town of Lyons recently invested in the credentialing of staff as a Certified Floodplain Manager (CFM), joining the CRS program may be a viable option for further enhancing the Town's commitment to floodplain management.

The FEMA brochure titled NFIP CRS: The Local Official’s Guide to Saving Lives, Preventing Property Damage, and Reducing the Costs of Flood Insurance provides an overview of the program to include how the CRS can serve as an important tool to promote flood hazard risk reduction and the value of maintaining flood insurance. For more information, see:

http://www.fema.gov/media-library/assets/documents/16104?id=3655
ASFPM's No Adverse Impact (NAI) program also promotes an enhanced approach to floodplain management that ensures the action of any one public or private property owner does not adversely impact the property and rights of others as measured by increased flood risk, including increased flood peaks, flood stage, flood velocity, erosion, and sedimentation. NAI floodplain management extends beyond identified floodplain areas to include managing development in watersheds where increased stormwater runoff and floodwaters originate with the goal of mitigating any adverse impact caused by development. NAI provides the opportunity to design custom programs and standards that meet the needs of a community as an alternative to minimum federal or state floodplain management regulations.

To learn more about the benefits of NAI and access the program resources that are available through ASFPM, see:
http://www.floods.org/index.asp?menuID=460

7. IMPROVE FLOOD RISK COMMUNICATION AND THE ABILITY TO DESCRIBE THE IMPLICATIONS OF DEVELOPMENT CHOICES

The effective communication of risk benefits from an improved understanding of the factors that comprise risk, conveying the information through the use of appropriate tools, and providing clear guidance on the implications of various development choices in flood-prone areas. Improved mapping, the provision of construction guidance, and the adoption of higher standards provide vehicles to accomplish this aim. Adopting this approach must recognize the changing national policy milieu to include the implications of the Biggert-Waters Flood Insurance Reform Act of 2012 and, more recently, the Homeowner Flood Insurance Affordability Act of 2014. Residents in the Town of Lyons that live in or near the floodplain should weigh the implications of these changes on the decisions they make during reconstruction.

Given the uncertainties and dynamism of the river and emerging changes to the National Flood Insurance Program (such as the escalating costs of maintaining flood insurance), local officials should be prepared to discuss how options, like elevating repaired and new homes to the Town’s current Flood Damage Prevention Regulations, or perhaps higher standards, will affect insurance cost and long-term flood risk. This information should be available to individuals who own or rent differing housing types as rising waters affect varied types of construction differently. For instance, one foot of water in a stick-built home may cause less damage relative to that sustained to a mobile home as one foot of water in the latter unit will likely result in a total loss. These realities should be acknowledged when considering amendments to flood elevations, riverine setbacks, and other hazard mitigation requirements.

8. APPLY MEDIATION AND OTHER DISPUTE RESOLUTION TECHNIQUES TO RESOLVE RECOVERY POLICY ISSUES

The disaster recovery process is often contentious, leading to a variety of disputes surrounding the equitable distribution of post-disaster assistance, confusion over grant eligibility, insurance settlements, property acquisition programs, and potential changes in land use patterns. Town officials and local residents are still in the process of navigating these issues following the flood. The application of alternative dispute resolution techniques like mediation should be used to develop mutually agreeable settlements.

One of the biggest challenges facing the Town of Lyons is the ability of officials to honor their commitment to assist residents who lost their homes in the flood return while identifying available sites for development that are safe places to rebuild and are located within or adjacent to the Town’s borders. The varied design options located throughout this document are predicated on the Town’s ability to identify these locations.

8.a. EMPLOY A THIRD PARTY MEDIATOR TO MODIFY OPEN SPACE REGULATIONS

The CPAT suggests that the Town of Lyons and Boulder County should employ a third-party mediator to as-
sist in the amendment of the County/Town Intergovernmental agreement, emphasizing the need to modify the Boulder County Open Space regulations. We believe that it is crucial to establish a land swap (transfer of development rights) that would exchange land located in the Town’s Special Flood Hazard Area (to be designated a County park) with County-owned open space on higher ground. The land previously maintained by the County would be converted to developable land suitable for replacement housing. Incorporating the results of any settlement in recognized plans, like the Town of Lyons Comprehensive Plan and Boulder County Multi-Hazard Mitigation Plan will further solidify its standing.

BEST PRACTICES
See the case study of the City of Portland on pages 42-48 (TDR noted on page 45) in the following resource:


9. ENHANCE EXISTING PLANS TO IMPROVE RESILIENCE
The application of land use tools, including plans, provide one of the most effective and enduring ways to further disaster resilience. The review of existing plans in Lyons suggest that new policies advancing the linkage between risk reduction and disaster recovery described throughout this document is agreeable in principle and achievable in practice.

In order to further this aim, it is suggested that Town officials consider developing two new planning documents. First, we recommend that the Town develop a post-disaster redevelopment plan, building on the post-disaster Recovery Action Plan developed after the 2013 flood. This process should be done in concert with the still evolving guidance provided by FEMA and state officials tied to the National Disaster Recovery Framework. We also suggest that the Town develop its own stand-alone hazard mitigation plan given its extreme vulnerability and number of specific hazard mitigation projects and policies developed since the flood.

BEST PRACTICES
For additional information about integrating local plans to enhance disaster recovery goals, see:


For more information on incorporating hazard mitigation into local planning, as well as more detailed case studies on some of the best practices provided herein, see:


• The American Planning Association’s PAS report on planning for post-disaster recovery is being updated and will be published in October 2014 under the new title Planning for Post-Disaster Recovery: Next Generation. For more information regarding the book’s content and status for publication, see: https://www.planning.org/research/postdisaster/
MEET THE TEAM

Gavin Smith, Ph.D., AICP | Team Leader

Gavin Smith, PhD, AICP is an associate research professor in the Department of City and Regional Planning at the University of North Carolina at Chapel Hill and Executive Director of the U.S. Department of Homeland Security’s Coastal Hazards Center of Excellence. In 2011, Dr. Smith completed the text, Planning for Post-Disaster Recovery: A Review of the United States Disaster Assistance Framework (Island Press) as well as several book chapters addressing the linkage between hazards analysis, planning, and sustainable development. More recently, Dr. Smith helped to undertake a six-year study of the quality of state and local hazard mitigation plans and co-edited the text, Climate Change Adaptation: Lessons from Hazards Management Planning (Springer 2014). While working in state government, Gavin has served as the Assistant Director for Hazard Mitigation and advisor to Governor Hunt in the State of North Carolina following Hurricane Floyd and the Executive Director of the Governor’s Office of Recovery and Renewal in Mississippi following Hurricane Katrina.

David Perkes

David Perkes is a licensed architect and Professor at Mississippi State University. He is the founding director of the Gulf Coast Community Design Studio, a professional outreach program of the College of Architecture, Art + Design. The design studio has assisted in the renovation of hundreds of damaged homes and the design and construction of over two hundred new houses in Biloxi and other communities following Hurricane Katrina.

Darrin Punchard, AICP

Darrin Punchard, AICP, CFM, is a principal consultant with MWH Global, serving as the Americas region leader for risk and resiliency services. He is an urban planner and floodplain manager who has spent his entire career working with local communities to become more resilient to disaster. He has nearly 20 years of experience in hazard mitigation planning with specialized expertise in risk assessment, benefit-cost analysis, and mitigation strategy development to include structural and non-structural measures. Darrin prepared some of the nation’s first federally-approved hazard mitigation plans following passage of the Disaster Mitigation Act of 2000, and in recent years he has worked closely with APA and FEMA on the subject of integrating hazard mitigation into local planning. His public service career includes serving as the State Hazard Mitigation Officer for North Carolina and as a state and local hazard mitigation planner in Florida.
Andrew Rumbach, Ph.D.

Andrew Rumbach is an assistant professor in the Department of Planning & Design at the University of Colorado Denver and the coordinator of the Resilient Colorado Initiative. His research examines the relationships between urbanization and environmental risk, with special focus on the vulnerability of marginalized communities to natural hazards and global climate change. He has studied issues related to community disaster risk reduction and recovery in post-Katrina New Orleans, landslide affected cities in the Indian Himalayas, post-tsunami American Samoa, and Colorado. He teaches in the areas of environmental planning, planning history, and disaster management. Dr. Rumbach serves as a member of the Town of Lyons Recovery Advisory Committee.

Ryan Scherzinger | APA Staff

Ryan Scherzinger is Senior Outreach Associate for the American Planning Association. He’s worked extensively on APA’s Community Planning Assistance Teams (CPAT) program providing direct technical assistance to communities around the country with multi-disciplinary teams of experts. He’s managed myriad programs and special projects for APA, including community workshops, case studies, federal grants, symposia and lecture series, study tours, international events, and interactive public exhibits.
Brandon Gossard
Brandon Gossard graduated from the University of Northern Colorado in 2006 with a BA in Geography including an emphasis on Geographic Information Systems. He worked as a city planner in Greeley, Colorado from 2006 to 2013. Since 2013, he's worked as consultant for Compass GPS, LLC. He is a graduate student at CU Denver working towards a dual masters degree in planning and architecture. He's worked on a number of volunteer planning projects such as the Poudre River Trail, Poudre Learning Center, Georgetown Lake Trail, and the Town of Lyons as part of the Recipient Colorado Initiative run by CU Denver.

Rachel Koleski
Rachel Koleski graduated from The Art Institute of Colorado in 2009 with a BA in Interior Design; Portfolio Par Excellence. She worked for three years at a Denver architectural firm in the Interiors, Marketing, and Graphic Design Department before returning to school to pursue a dual masters degree in planning and architecture from CU Denver.

Elyse Dinnocenzo - Graduate Student, University of Colorado Denver
Sarah Rosenberg - Graduate Student, University of Colorado Denver

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Ray Kramer - Principal at WKJ Architecture and a senior community planner in the Community Planning and Capacity Building Recovery Support Function at FEMA, who provided architectural support to the team.

FEMA also provided work and meeting space for the team during their visit in Lyons and representatives from their Community Planning and Capacity Building team played an active part in the CPAT project.
PICTURE GALLERY
The following are select photographs from the CPAT visit to Lyons, Colorado.

During the preliminary visit in February 2014, team leader Gavin Smith, AICP met with Town officials and other state and federal agency representatives. Pictured here is Rosi Dennett, AICP, Lyons Housing Coordinator; Gavin Smith, AICP, CPAT leader and associate professor in the Department of City and Regional Planning at the University of North Carolina at Chapel Hill; Anne Miller, AICP, Senior Planner for the State of Colorado Department of Local Affairs (DOLA); and Andrew Rumbach, CPAT member and assistant professor at the University of Colorado Denver. *Photo by Ryan Scherzinger*

Many homes along the St. Vrain River were destroyed or significantly damaged. The spirit and resilience of Lyons residents, however, was evident from the start of the CPAT project. *Photo by Ryan Scherzinger*
Community Planning Assistance Team volunteers Andrew Rumbach; David Perkes; Darrin Punchard, AICP; and Gavin Smith, AICP. Photo by Ryan Scherzinger

Four graduate students from the planning department at the University of Colorado Denver helped the team throughout the project. The four students were part of a class taught at UC Denver by team member, Andrew Rumbach, through which they and other students collected data, performed analyses, assisted with the creation of renderings, and provided feedback on design-based choices. Photo by Ryan Scherzinger
Team member David Perkes works on a drawing that was used to illustrate the team’s design recommendations. Photo by Ryan Scherzinger

Team member Darrin Punchard, AICP discussing some of the team’s concepts and ideas with Lyons residents following the team’s final presentation. Photo by Ryan Scherzinger
An artist’s colorful map of Lyons hangs on the wall at the Barking Dog Cafe in the heart of Downtown. Also found at the café, and throughout Town, (pictured below) is a bumper sticker with the words, “We’ve got GRIT,” that speaks to the spirit of the Lyons residents. Photos by Ryan Scherzinger